

**‘Bridge Avenues On Floating
Modular Platforms’,
Case study:
Bridging the Messina Straits.**

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Bridging the Messina Straits and thus connecting Italy's Mainland and the island of Sicily and unifying the urban entities of Messina, Vila San Giovanni and Reggio di Calabria is a dream haunting Italian authorities for many decades. The presently adopted solution of a 3,300m of clear span suspension bridge at the northern tip of the straits is questionable, because of the proximity to the Etna and its ineffectiveness vis a vis the emerging metropolitan area.

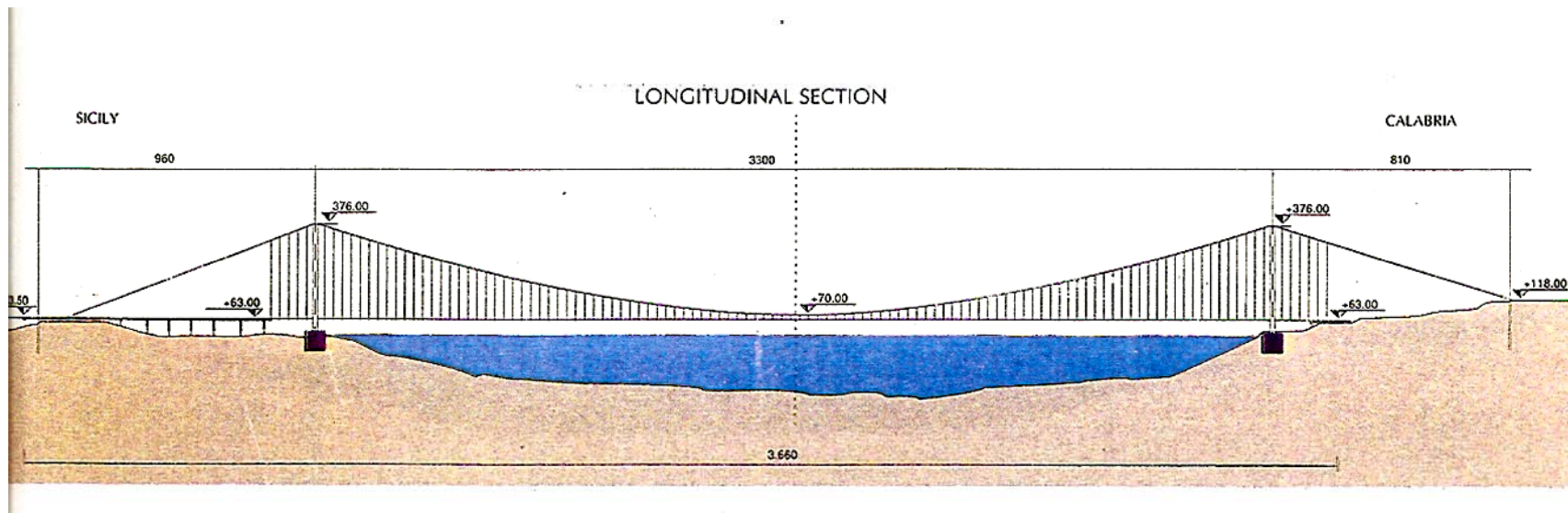
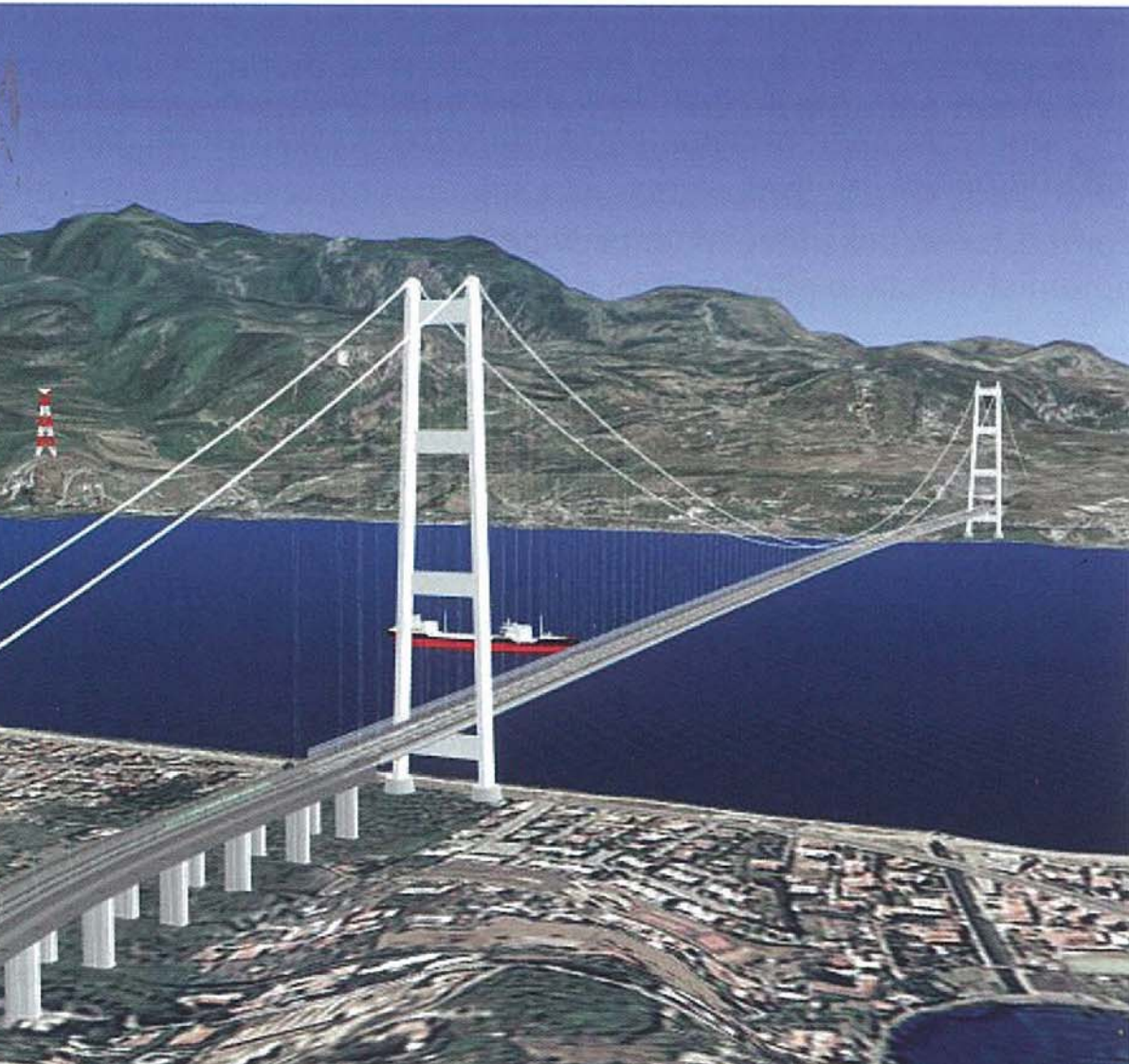


Figure 3.5 ►
Visual impact
assessment by 3D
interactive modelling:
view of the bridge
from Sicily.



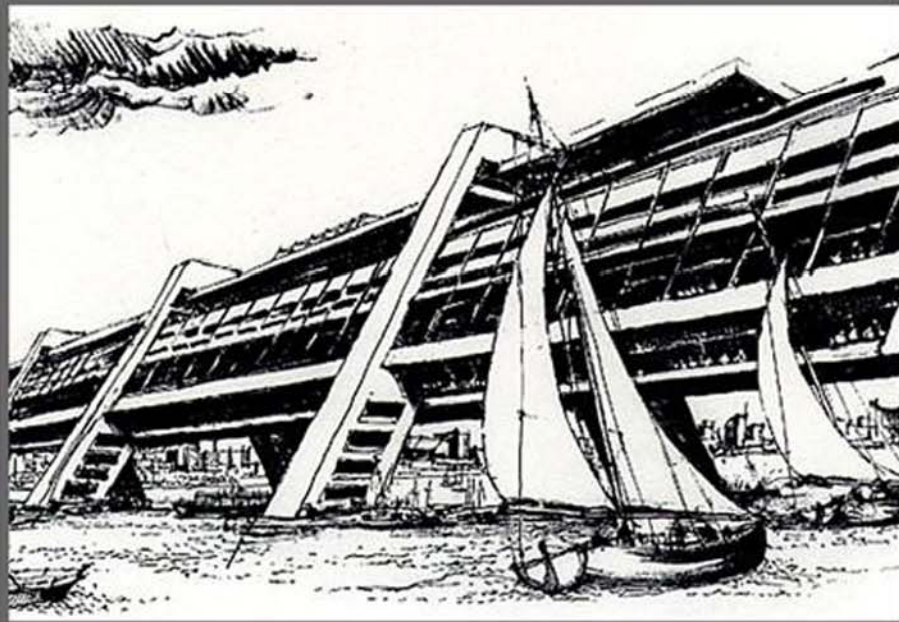


◀ Figure 3.6
Visual impact
assessment by 3D
interactive modelling:
view of Pantano
viaduct.

. The suggested conceptual bridging approach is in employing habitable bridge avenues, supported on floating platforms, thus realizing built assets for rent or sale, real-estate cost-free, that generate enough revenues to cover all the expenses of the incorporated transportation solutions.

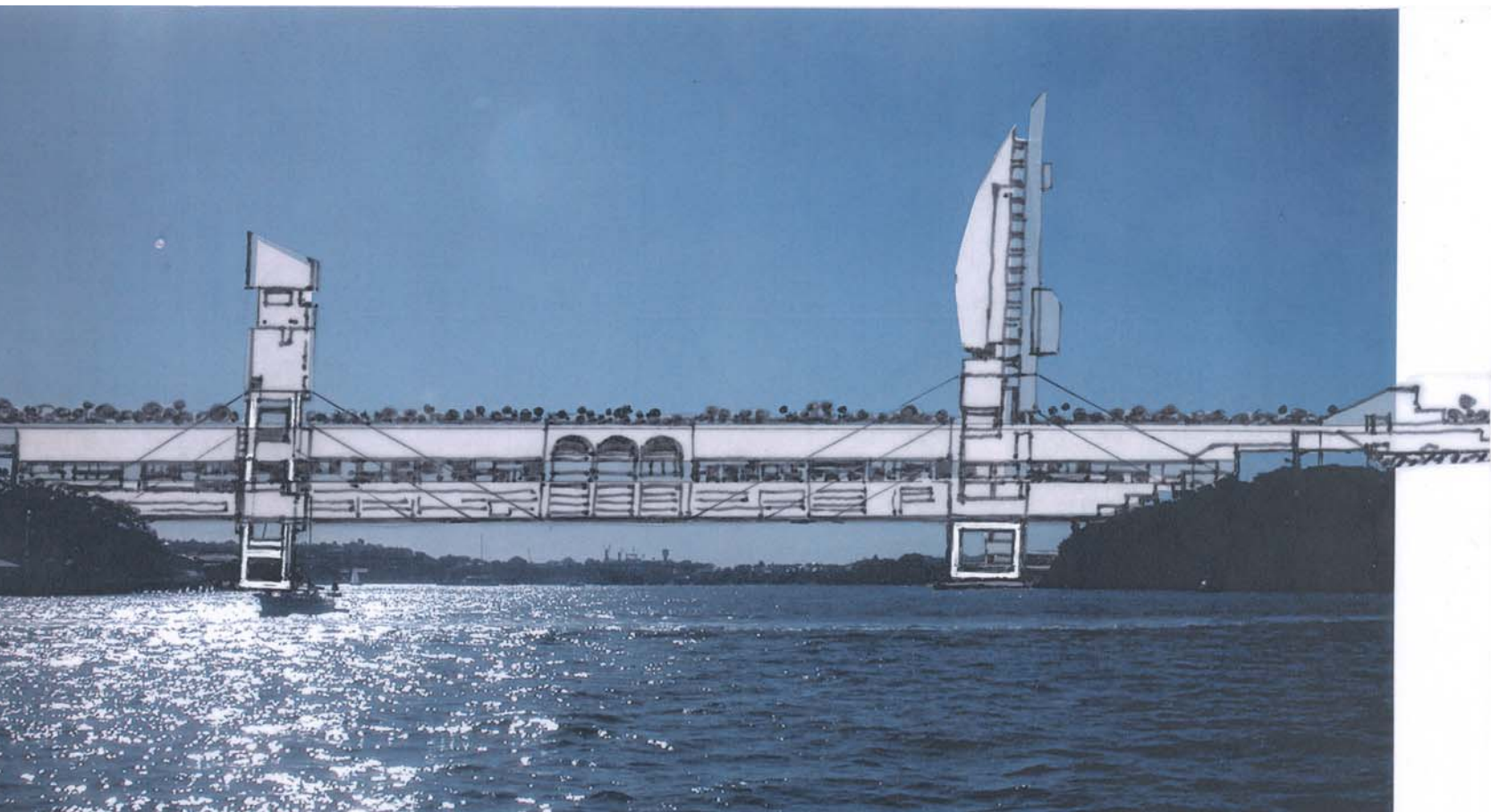






RIDGE AVENUES





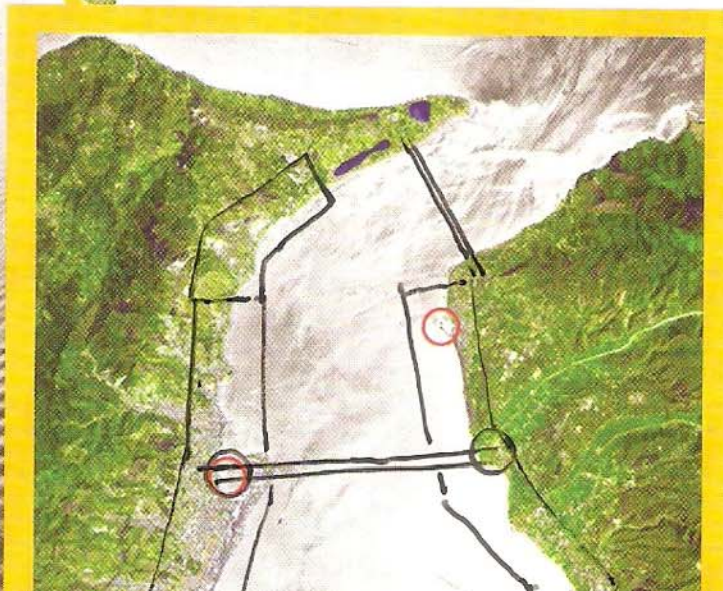
Once the span is stopping to be the deciding issue many other locations may be considered which may benefit the evolving metropolitan area at large. A location is suggested, connecting the centre of Messina and the confronting coastal spot between Vila San Giovanni and Reggio di Calabria, altogether spanning about 6.0km of watery distance and altogether reaching to `7000m.

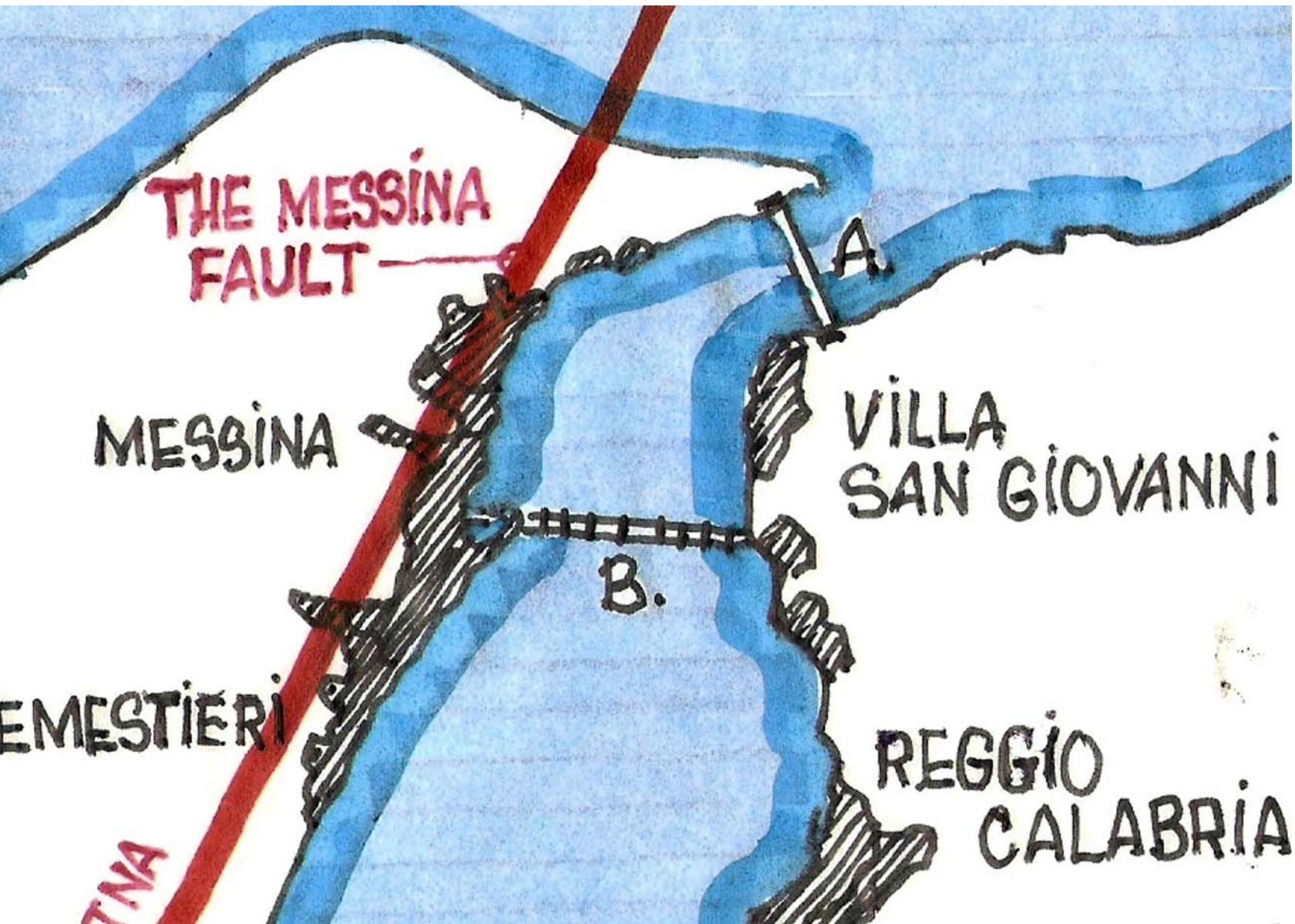


◀ Figure 1.5
NASA Satellite view of the Strait.
Effects of the currents are visible. In the
lower left corner, Etna volcano (3,360 m
above sea). The 4 harbours of the Strait
are circled in the detail above.

*Background images from NASA ([http://
earthobservatory.nasa.gov](http://earthobservatory.nasa.gov)).*

METROPOLITAN REGION OF THE MESSINA STRAIT

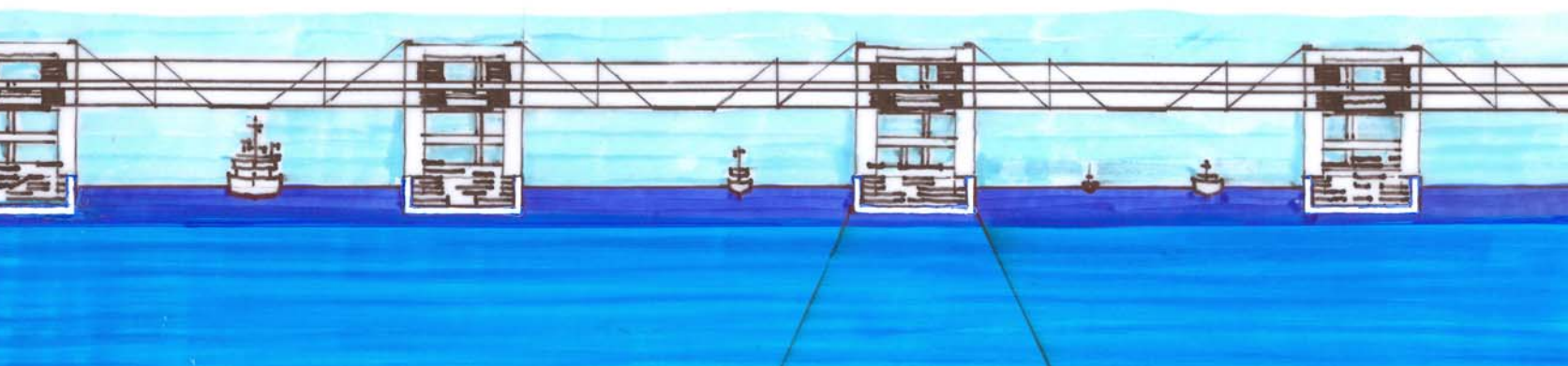
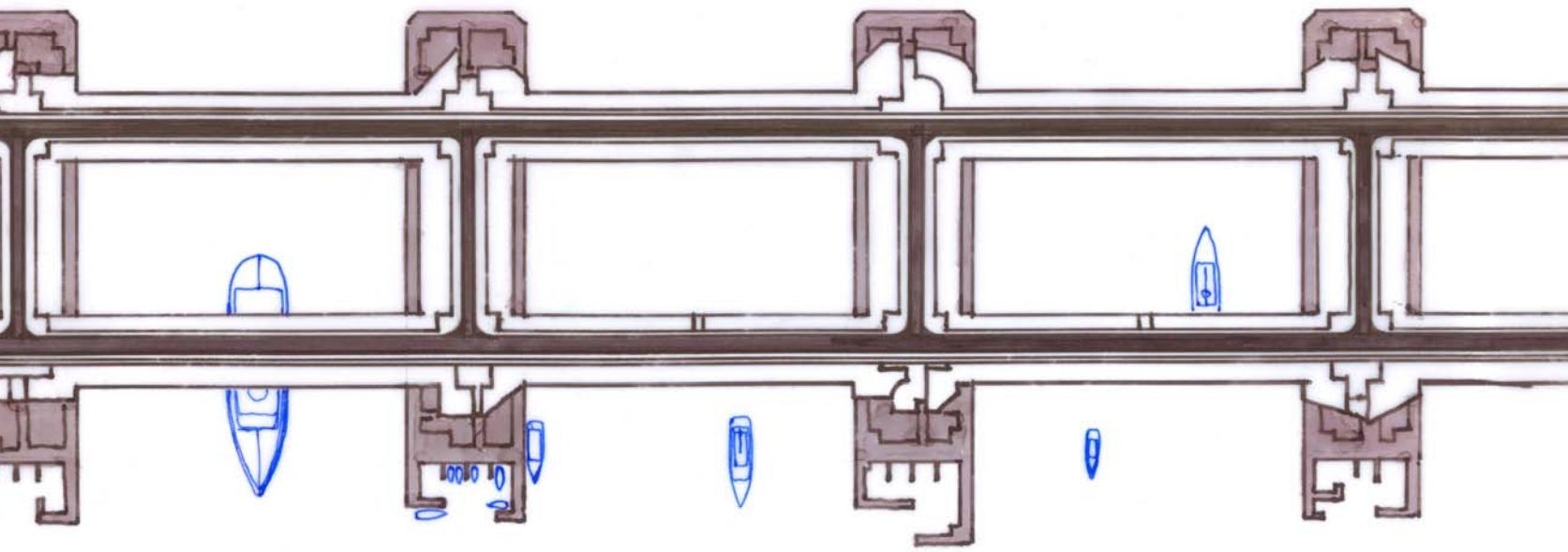




The alternative design approach of the '**Habitable Bridge Avenues on Floating Platforms**', connecting over the straits, between Messina and Vila San Giovanni-Reggio di Calabria and thus providing them with regular road-rail connection, is “out of the box” conceptual solution which, regrettably, was not suggested and not considered during the elaborate design process

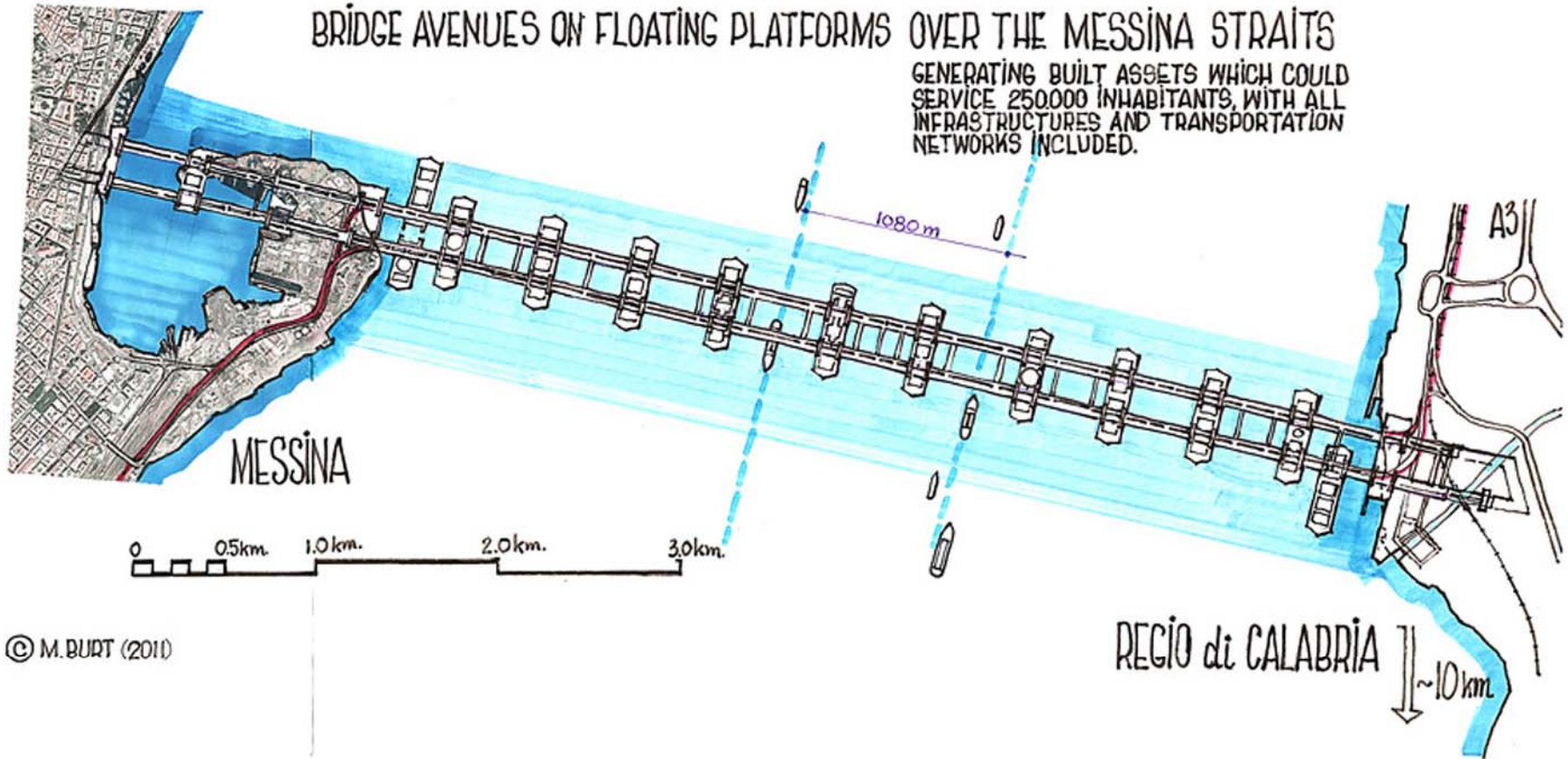
The proposal represents an alternative design strategy, applicable to a wide range of similar situations around the world.

The Bridge Avenues are a combined solution of habitable dwelling apartments, commercial and servicing areas, public spaces and transportation in-volumes of vehicular and rail traffic, designed to meet the programmatic requirements and performance specifications. The supporting housing-commerce towers and the volumetric platforms are designed to support most of the infrastructures and public servicing facilities, necessary for leading



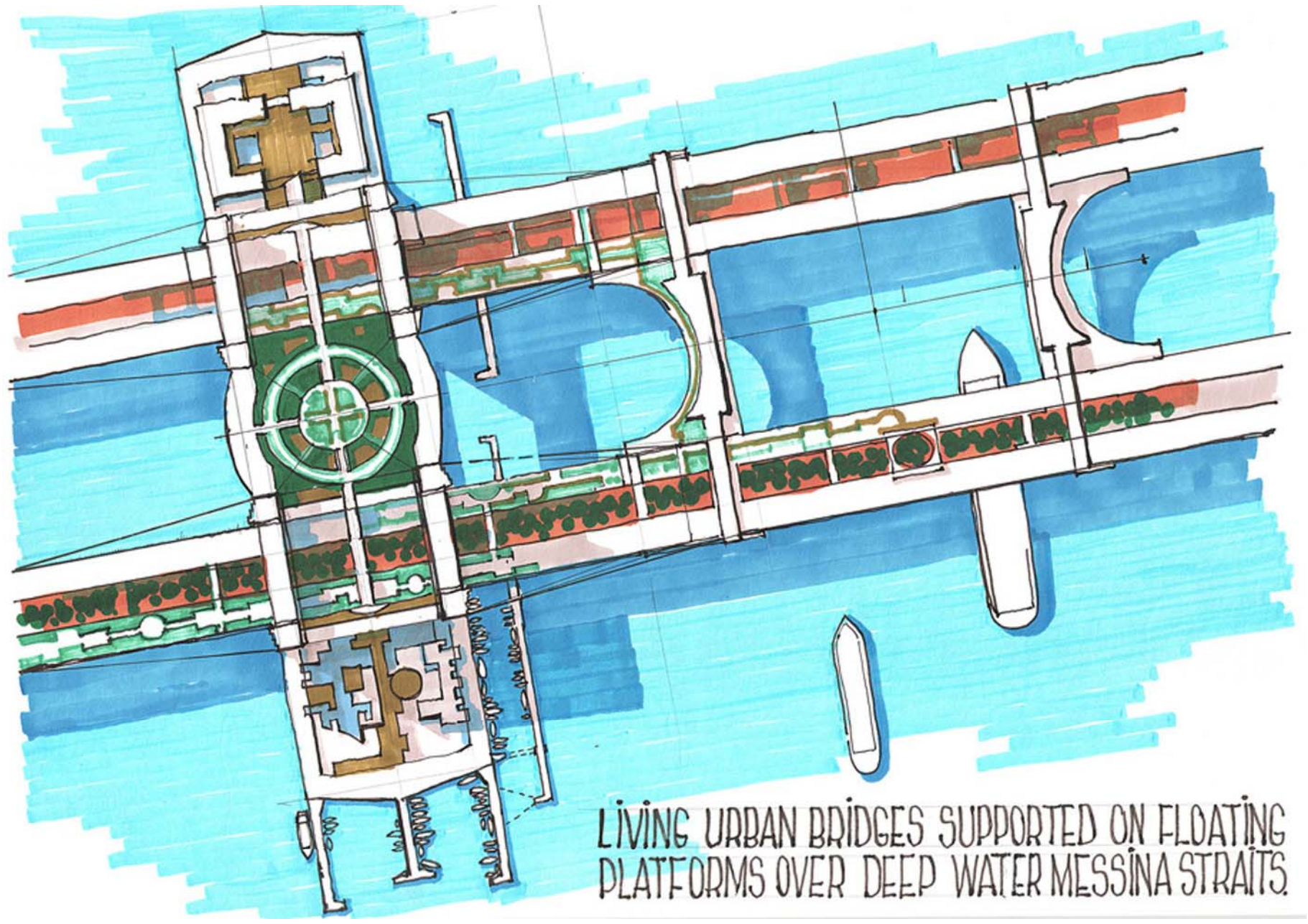
BRIDGE AVENUES ON FLOATING PLATFORMS OVER THE MESSINA STRAITS

GENERATING BUILT ASSETS WHICH COULD SERVICE 250,000 INHABITANTS, WITH ALL INFRASTRUCTURES AND TRANSPORTATION NETWORKS INCLUDED.



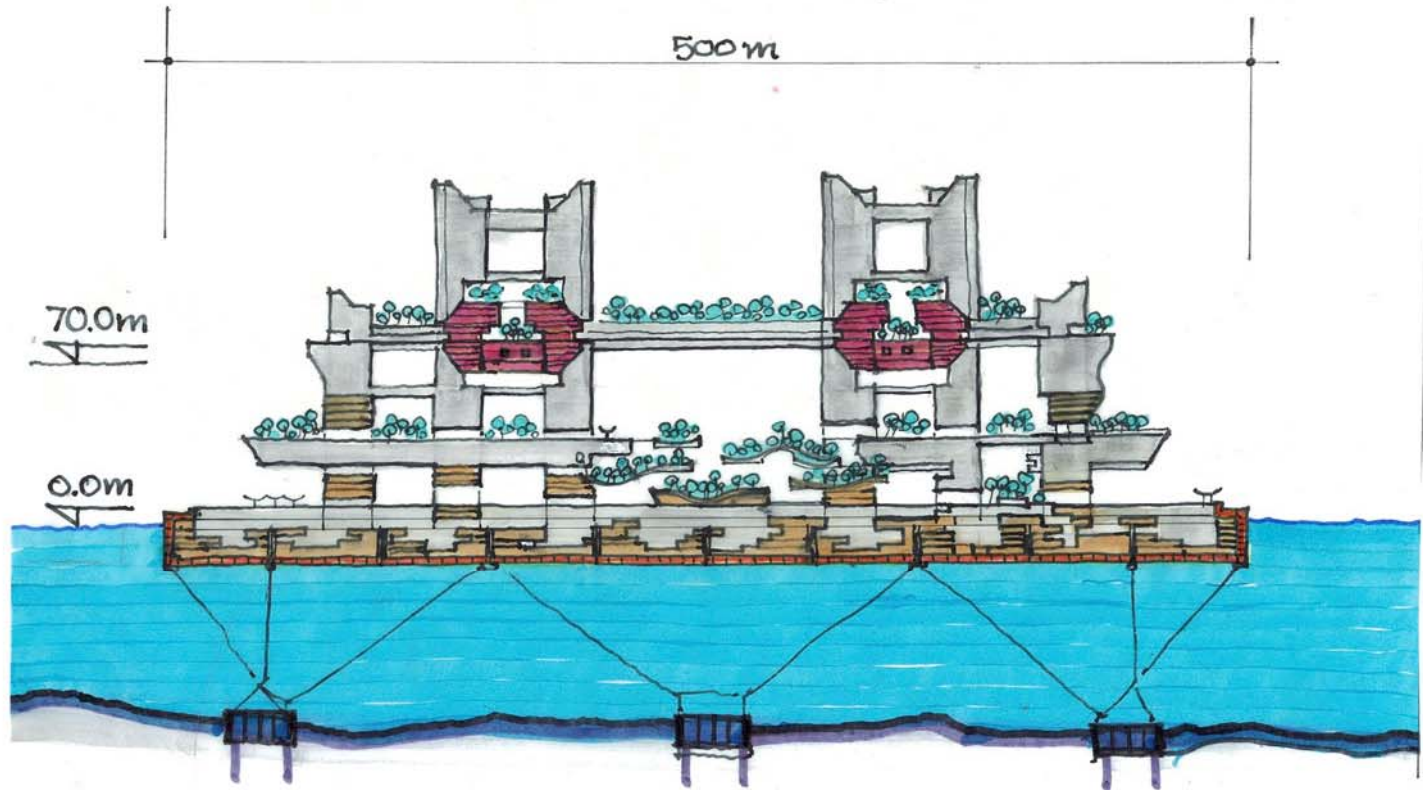
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The built assets, for sale or rent, generate more than enough revenues to cover the project's building-realization costs with the transportation development as a critical by-product, with no cost to the public treasury.

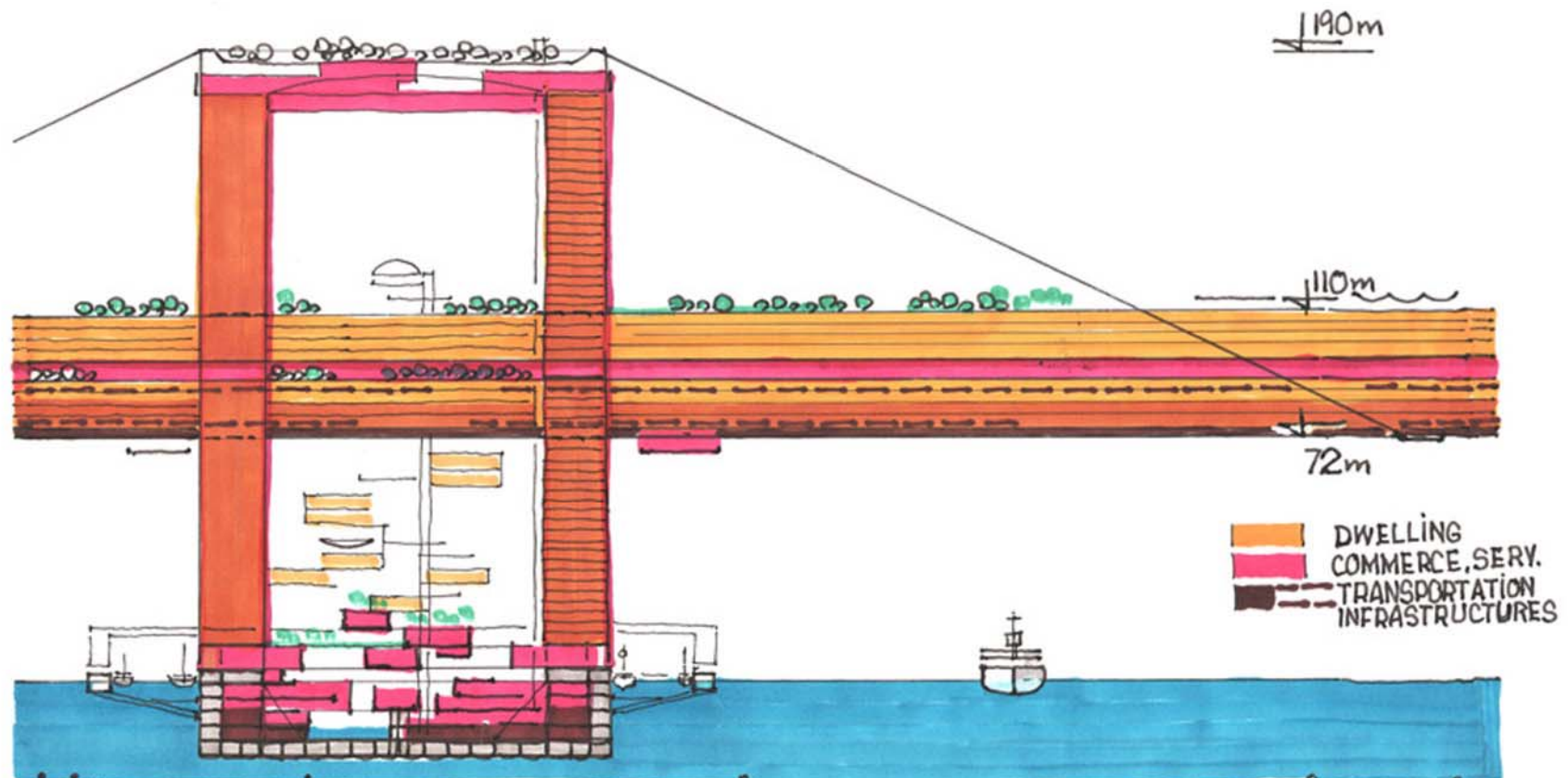


LIVING URBAN BRIDGES SUPPORTED ON FLOATING PLATFORMS OVER DEEP WATER MESSINA STRAITS.

LIVING URBAN BRIDGE-AVENUES ON FLOATING PLATFORMS OVER THE MESSINA STRAITS.

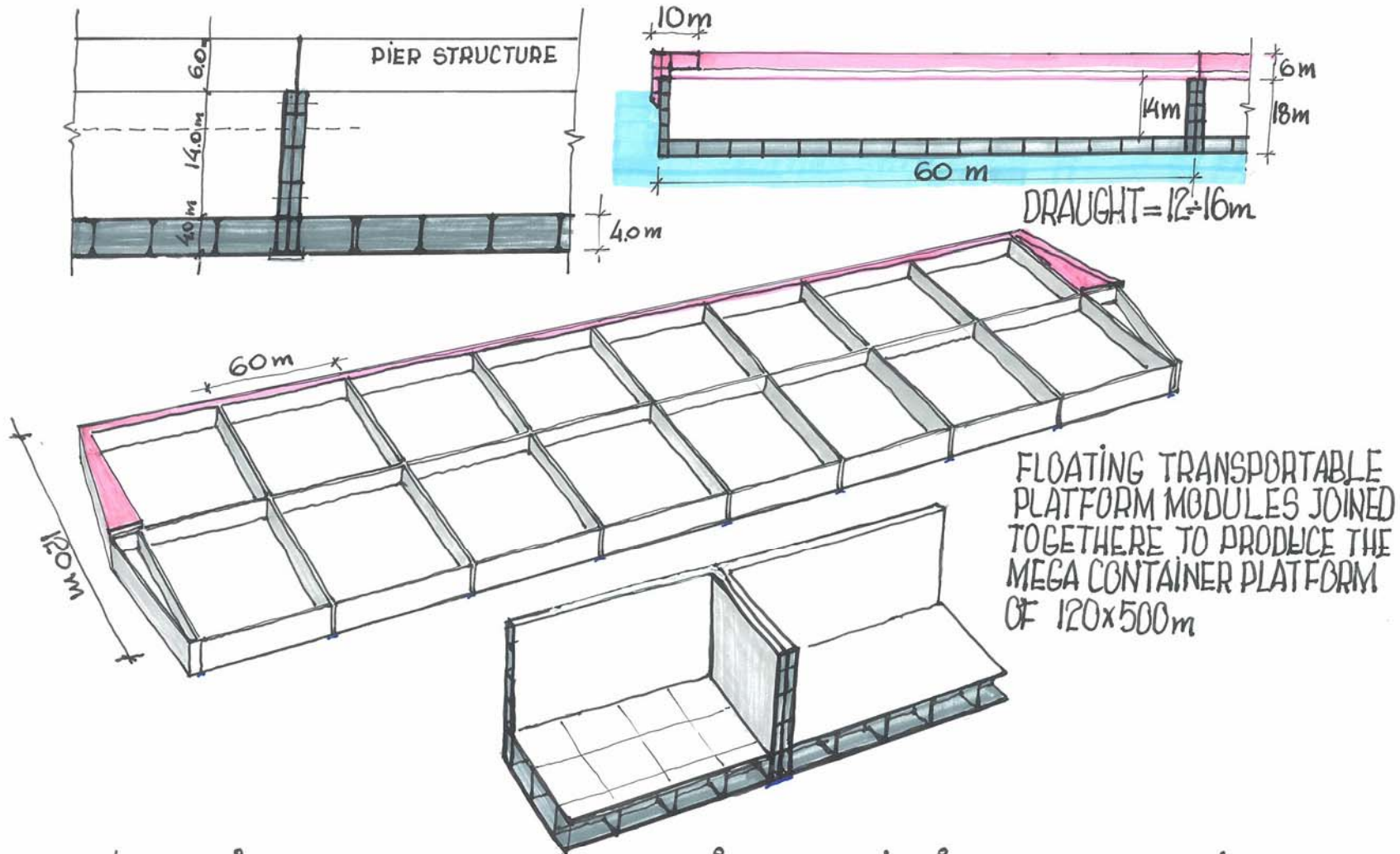


BRIDGING THE MESSINA STRAITS - AN ALTERNATIVE CONCEPTUAL APPROACH



LIVING URBAN BRIDGES, SUPPORTED ON FLOATING PLATFORMS OVER THE MESSINA STRAITS.

Technically speaking the mega-float container platform can be solved by advanced reinforced concrete technology, adapted to sea water environment, as a double plate modular structure. The modules of about 60x60m, with upraised double-layer walls, which, when joined-merged together, generate the compartmentalized mega-platform.



MODULAR 'CONTAINER PLATFORM', SUPPORTING THE 'BRIDGE AVENUES'

The obvious merits of the approach, **structural** (resilience to the potential regional seismic activity) **economical** (with the provided built assets for sale or rent, real-state cost-free, potentially paying for the whole investment) and the **urban-metropolitan** (boosting the development of the Mezzogiorno), on top of the programmatic response to the transportation demands, justify its further study and analysis.

. As a case study, it points to a promising potential solution while addressing similar geographic-urban-economical situations, abounding around the globe.